

1 The opinion in support of the decision being entered today is *not* binding
2 precedent of the Board
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4 UNITED STATES PATENT AND TRADEMARK OFFICE
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7 BEFORE THE BOARD OF PATENT APPEALS
8 AND INTERFERENCES
9

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11 *Ex parte* ROBERT R. SMITH, III
12

13 Appeal 2006-2795
14 Application 10/689,392
15 Technology Center 3600
16

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18 Decided: July 24, 2007
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21 *Before:* TERRY J. OWENS, MURRIEL E. CRAWFORD, and ANTON W.
22 FETTING, *Administrative Patent Judges.*
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24 CRAWFORD, *Administrative Patent Judge.*
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27 DECISION ON APPEAL
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29 STATEMENT OF CASE

30 Appellant appeals under 35 U.S.C. § 134 (2002) from a final rejection
31 of claims 1 to 4, 6 to 8 and 11 to 16. We have jurisdiction under 35 U.S.C.
32 § 6(b) (2002).

33 Appellant invented a seal retainer with pressure energized metal seal
34 members for undersea hydraulic coupling (Specification 1).
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1 Claim 1 under appeal reads as follows:

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3 1. A seal retainer for an undersea female hydraulic coupling member,
4 comprising:

5 a. a first metal seal integral with the seal retainer for creating a
6 pressure-energized seal between the seal retainer and a probe of a
7 male coupling member inserted in a female hydraulic coupling
8 member containing the seal retainer; and,

9 b. a second metal seal integral with the seal retainer for creating a
10 pressure-energized seal between the seal retainer and a female
11 hydraulic coupling member containing the seal retainer.

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13 The Examiner rejected claims 1 to 4, 6 to 8 and 11 to 16 under
14 35 U.S.C. § 103 as being unpatentable over Smith in view of Press.

15 The prior art relied upon by the Examiner in rejecting the claims on
16 appeal is:

17 Smith,III ("Smith)	5,015,016	May 14, 1991
18 Press	3,142,498	Jul. 28, 1964

19

20 Appellant contends that there is no motivation or reason to combine
21 the teachings of Smith and Press.

22 The Examiner contends that Press teaches that making a pressure-
23 energized seal integral with the body of the retainer is an art equivalent to
24 providing them separately. The Examiner concludes that it would have been
25 obvious to one of ordinary skill in the art at the time the invention was made
26 to modify the retainer of Smith by making the first and second seals integral
27 with the retainer as such is an art equivalent construction as taught by Press.

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ISSUES

Has Appellant shown that the Examiner erred finding that there is a reason or motivation to combine the teachings of Smith and Press.

FINDINGS OF FACT

Appellant invented a seal retainer 10 that is depicted in Figures 1 and 2. The seal retainer 10 is used in a female hydraulic coupling member 72. The seal retainer 10 includes a first metal seal 64 and a second metal seal 68. First metal seal 64 and second metal seal 68 are integral with the seal retainer 10. First metal seal 64 is machined so that when the probe of the metal coupling member is inserted into the female coupling member 72, the metal seal 64 will be forced out slightly causing a press fit or interference fit (Specification, paragraph 00015). If pressurized fluid is attempting to flow up along the probe, it will first fill cavity 66, which as the pressure builds, will simply work to increase the seal pressure of the metal seal 64 against the probe (Specification, paragraph 00015). Second metal seal 68 is machined so that when end 29 of the seal retainer is in contact with shoulder 76 of the female hydraulic member, the legs of metal seal 68 are in press contact with shoulder 78 of the female hydraulic member so that a slight displacement of second seal 68 occurs. If fluid from outside the coupling tries to come around the seal retainer and gets past seal 70, fluid will fill cavity 82 and cause additional pressure to further seal off fluid flow using second metal seal 68 (Specification, paragraph 00016).

Smith discloses a seal retainer 22 for an undersea female hydraulic member 14 (col. 1, lines 6 to 9; Figure 3). A first metal seal 15 and second metal seal 55 are disposed in contact with seal retainer 22 (col. 5, line 37;

1 col. 6, line 33; Figure 3). First metal seal 15 and second metal seal 55 are
2 not integral with the seal retainer 22.

3 Press discloses a swivel joint assembly with complimentary swivel
4 members 12 and 13 (col. 2, lines 15 to 17). In the embodiment depicted in
5 Figure 3, a flexible metal flange 16 integral with swivel member 13 bears
6 against a shoulder 15 of member 12 thereby creating a fluid tight seal (col. 2,
7 lines 25 to 26 and col. 2, line 70 to col. 3, line 3). In the embodiment
8 depicted in Figure 5, an annular metal element or ring 30 which is not
9 integral with the swivel member 13 provides the fluid tight seal (col. 3, lines
10 25 to 37). Press does not disclose a seal retainer or an undersea hydraulic
11 female member.

12 Press discloses that an integral seal and a non-integral seal are
13 equivalent in connection with a swivel member in a swivel joint assembly.
14 Press does not disclose metal seals for use in a female member in a female
15 hydraulic member.

16 DISCUSSION

17 The Examiner is correct that where two known alternatives are
18 interchangeable for their desired function, an express suggestion of the
19 desirability of the substitution of one for the other is not needed to render
20 such substitution obvious. See *in re Fout*, 675 F.2d 297, 301, 213 USPQ
21 532, 536 (CCPA 1982); *In re Siebentritt*, 372 F.2d 566, 568, 152 USPQ 618,
22 619 (CCPA 1967). However, we find no teaching in the prior art that it was
23 known to form seals 15 and 55 of Smith so as to be integral with the seal
24 retainer 22. While Press discloses that in a swivel joint assembly a flange
25 portion 16, which seals one swivel member to another may be formed

1 integral, or non-integral, with one of the swivel members, such is not a
2 teaching that integral and non-integral seals for a seal retainer are known
3 alternatives. In this regard, Press does not disclose a male and female
4 hydraulic member with circular seals as is disclosed in Smith. Therefore,
5 the teachings in Press of the interchangeability of integral and non-integral
6 seals on a swivel member would not have motivated a person of ordinary
7 skill in the art to form the seals on the seal retainer 22 of Smith integral with
8 the seal retainer 22. Therefore, we will not sustain this rejection. The
9 decision of the Examiner is reversed.

10 REVERSED

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12 JRG

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